SHANTI Bill 2025 – Important Provisions & Challenges – Explained Pointwise

A new Bill has recently been tabled in the Parliament called **Sustainable Harnessing & Advancement of Nuclear Energy for Transforming India Bill, 2025 (SHANTI).** It repeals both the Atomic Energy Act & Civil Liability for Nuclear Damage Act. & aims to overhaul India's civil nuclear framework and open the nuclear power sector to regulated private participation.

What are some of the important provisions of the SHANTI Bill?

1. The Bill **repeals and replaces** the **Atomic Energy Act, 1962** and the **Civil Liability for Nuclear Damage Act, 2010**, creating a single modern statute for civil nuclear power, safety and liability.

2. The Bill laws down a comprehensive framework for development, production, use, control & disposal of **nuclear material & facilities**.

3. SHANTI allows **Indian private companies & joint ventures** (including PSUs) to undertake specific nuclear activities like manufacturing, construction & operation of nuclear power plants – subject to licensing by the Central Government.

4. **Foreign incorporated entities** cannot be direct operators but can participate via Indian-incorporated JVs & supplier roles, under safeguards & approvals.

5. The Bill grants full statutory status to the **Atomic Energy Regulatory Board (AERB),** making it an independent nuclear safety regulator with powers for licensing, inspection, enforcement & shutdown orders. It empowers AERB to take control of nuclear material, facilities or equipments in emergency or if an operator violates safety norms.

6. SHANTI introduces a **new civil nuclear liability regime** replacing the 2010 law, with defined operator liability & compulsory insurance. The operator must maintain insurance of about Rs 1500cr per incident through the **Indian Nuclear Insurance Pool**.

7. The Bill enables promotion of advanced technologies such as **Small Modular Reactors (SMRs)** & new reactor designs, while keeping sensitive fuel-cycle activities (enrichment, reprocessing, strategic materials) under tighter government control.

8. The Bill provides enabling clauses for **public-private partnerships**, **R&D collaborations**, and **localization of nuclear manufacturing** – which aims to build a domestic supply chain & export potential in the long run.

What is the significance of the SHANTI Bill?

1. **Energy Security & Strategic Significance:** By replacing the outdated atomic energy & liability laws with a unified framework, SHANTI seeks to enable **large-scale expansion of nuclear capacity (target ~100 GW by 2047)** as low-carbon baseload power, complementing renewables and reducing import dependence on fossil fuels.

2. **Net Zero by 2070:** It aligns the nuclear policy with India's **net-zero-by-2070** pledge and long-term growth needs, positioning nuclear as a domestic, reliable source crucial for grid stability and industrial demand.

3. **Entry of Private Sector:** For the first time, the Bill formally **allows regulated private entry** (Indian private companies and JVs) into nuclear generation and related activities, with the goal of mobilising capital, speeding project execution, and drawing in advanced technologies such as Small Modular Reactors. It will help in reducing the delays & cost overruns that have historically constrained India's nuclear sector.

4. **Overhauling of Nuclear Safety Governance:** By giving **statutory independence and clearer powers to AERB**, SHANTI aims to strengthen nuclear safety governance, which is essential when more players and technologies enter the sector.

5. **Revised Civil Nuclear Liability:** The revised **civil liability and insurance framework** seeks a balance between attracting investors (through more predictable liability rules) and ensuring credible compensation mechanisms via mandated operator insurance and a dedicated Nuclear Damage Claims Commission.

6. **Attracting Foreign Nuclear Vendors:** A clearer, investor-friendly nuclear law can make India a more attractive destination for global nuclear vendors and finance, reinforcing strategic partnerships with supplier countries while maintaining sovereign control over sensitive fuel-cycle elements.

7. **Job creation, Nuclear Industrialization & Technological Upgradation:** Domestically, the Bill aims to drive localization of nuclear manufacturing, jobs, and a specialized industrial ecosystem, enhancing India's technological depth and potential future role as a regional nuclear-technology hub.

What are the limitations of the SHANTI Bill?

1. **Narrower Liability:** The Bill replaces the earlier flat ₹1,500 crore operator-liability cap with a **tiered cap from ₹100 crore to ₹3,000 crore**, depending on reactor capacity, which many argue is too low for a catastrophic nuclear accident.

2. **Weakened Supplier Accountability:** It **restricts the operator's right of recourse against suppliers** to narrowly defined contractual or intentional-fault situations, which effectively gives foreign and domestic suppliers "peace" from meaningful liability, shifting more risk onto the operator, state and public.

3. **Concentration of Powers:** The Bill gives the Central Government sweeping powers over licensing, tariff-setting, exemptions, emergency control and even novation of contracts, with limited independent institutional checks.

4. **Institutional Independence:** Although AERB gets statutory status, but it is to be seen whether it will be **sufficiently independent from the executive and operator influence**, given the central concentration of appointment and direction powers.

5. **Privatisation of Nuclear Sector:** Opening "ultra-hazardous" nuclear operations to profit-seeking private players without robust, visibly independent regulation and strong whistle-blower protections could increase accident and cover-up risks.

6. **Access to Justice:** The Bill **limits the jurisdiction of ordinary civil courts** in nuclear matters and channels disputes mainly through specialised commissions and tribunals, which may streamline cases but can also narrow avenues for affected communities to seek redress.

7. **Lack of Public Participation:** There is little explicit emphasis on **public consultation, environmental democracy, or community consent** around siting and expansion of nuclear plants, a gap that activists argue undermines the public-trust doctrine over life, health and environment.

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